converting means for converting layer-coded data belonging to each of a plurality of layers of an elementary stream (ES) to packetized elementary stream (PES) data;

first packetizing means for packetizing the PES data to a real time protocol (RTP) packet for each layer data; and

second packetizing means for packetizing the RTP packet to a user datagram protocol (UDP) packet for each layer data,

wherein said converting means converts the ES data so that only ES data belonging to the same layer is contained in a single PES packet which transmits an ES data,

wherein said first packetizing means divides the PES packet belonging to the same layer into a plurality of RTP packets each of which includes the divided PES packet data and a RTP header annexed to the divided PES packet so that the length of the RTP packet is not more than a maximum data length in which the UDP packet is transmittable, and

wherein said second packetizing means packetizes the RTP packet so that only the RTP packet data belonging to the same layer is contained in a single UDP packet.

12. A layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel, comprising:

converting means for converting layer-coded data belonging to each of a plurality of layers of an elementary stream (ES) to packetized elementary stream (PES) data; and

means for packetizing the PES packet to a user datagram protocol (UDP) packet for each layer data,

wherein said converting means converts the layer-coded data so that only the elementary stream data belonging to the same layer is contained in a single PES packet, and

wherein when said packetizing means divides the PES packet data belonging to the same layer into a plurality of UDP packets said packetizing means annexes at a predetermined position in each of the UDP packets information representing a position of a datagram of that divided UDP packet in the undivided PES packet.

13. A method of converting layer-coded video data to internet protocol (IP) packets, comprising the steps of:

converting low and high frequency component data each of intra-encoded image data, prediction-encoded image data and bidirectional prediction-encoded image data to their respective packetized elementary stream (PES) packet;

converting each of the PES packets to real time protocol (RTP) packets, the length of the RTP packets being not more than the maximum data length in which a user datagram packet (UDP) is transmittable;

converting each of the RTP packets to a single UDP packet; and

converting the UDP packets to IP packets.--